

Application No. 09/812409  
Amendment dated:  
Reply to Office Action of: March 22, 2005

### **REMARKS/ARGUMENTS**

We are pleased to note that the Examiner found our arguments in respect of US 6,701,440 (Kim) persuasive and that the former rejection has been withdrawn.

**Claims 1-6, 11-15, 17-20 and 26-30 have been rejected in the light of Ji.**

With respect to independent claims 1 and 15, the Office Action objects, inter alia, that the claimed feature of analysing and scanning the electronic message for tags indicating the presence of operable programmable code is disclosed in Ji.

We submit that Ji teaches checking for portions of a message that are encoded with a uuencoded encoding scheme by detecting portions of the message which start with a line like "Begin 644 filename" and end with a line like "end" (Ji col.11 lines 56-61). Ji also discloses determining whether a file to be transmitted contains an extension .exe, .zip or .com (Ji col. 8 line 63 - col. 9 line 3). The term "tag" in the subject claims has been amended from "tag" to "script tag" in better define the invention. This amendment has basis in, for example, page 7 lines 16 and 27 of the present application. We submit that the script tags of the amended claims are not equivalent to the lines "Begin 644 filename" and "end" and the file extensions ".exe, .zip and .com" of Ji.

The Office Action further contends that Ji discloses the feature of "removing such tags and operable code" as claimed in independent claims 1 and 15. This contention appears to be based firstly on the teaching in Ji that on detecting uuencoded portions of a message the uuencoded message is decoded to original binary code and the binary code then subjected to a known virus signature checking program and optionally the mail message is transferred with the portions that have been determined to have viruses removed (Ji col. 12 lines 17-49). It is noted, although not referred to by the Examiner, that where file extensions ".exe, .zip and .com" are detected on an outgoing file attachment, i.e. the file is "of a type that can contain viruses", the file is

Application No. 09/812409  
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checked to determine whether it contains viruses, preferably using a virus-checking program, and if viruses are detected optionally the file is not transmitted. Better to define the invention, claims 1 and 15 have been amended explicitly to claim automatic removal of operable code without invoking a virus signature checking program.

We submit, there is basis for such automatic removal at page 7 lines 15-16: "If a script tag is found in an embodiment [presumably "body" was intended] or attachment, the program is removed"; at page 8 line 1-2: "if a macro is detected within an attachment, the attachment may either be deleted..., or quarantined"; at page 8 lines 13-17: "the ... invention automatically removes any attachments ... which have the capability of running program codes or external programs by using macros. That is all macros or attachments containing macros are removed or deleted ... whether they are harmful or not"; and at page 8 line 27-29: "If the attachment is found to contain all four strings, the attachment is either deleted ... or quarantined".

There is basis in the description for the feature of not invoking a virus-checking program in, for example, page 7 lines 13-15 "amending the method ... to scan for such different character scripts is a trivial task compared with the impossibility of updating known anti-virus systems with character strings from all viruses in advance" and in the discussion of the prior art at page 1 line 7 – page 2 line 2 where it is indicated that it is an object of the invention to overcome the limitations of using virus-checking programs which rely on "scanning an incoming electronic mail message for strings of characters which are known to be included in known viruses" page 1 lines 15-17.

We submit that there is no disclosure in the cited prior art of the automatic removal of any such script tags and operable program code without the invocation of a virus-checking program, as claimed in amended claims 1 and 15.

The Office Action makes further asserts that the additional features of the dependent claims 2-6, 11-14, 17-20 and 26-30 are known from Ji. However, for example, we are

Application No. 09/812409  
Amendment dated:  
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not aware of any teaching in Ji of scanning attachments for macros as claimed in claim 6. Moreover, since we submit the amended independent claims are patentable in the light of the argumentation and amendment above, then we submit the narrowing dependent claims are also patentable. However, in addition, the term "predetermined character strings" in the dependent claims 3, 18 has been amended to "script tags containing predetermined character strings" for greater consistency with the amended independent claims and more obviously to distinguish the invention from virus signature checking programs. Similarly, claims 11, 12, 24 and 25 have been amended more clearly to indicate that the electronic mail message is scanned for character strings indicative of the presence of any macros, not for a character string indicative of the presence of a known virus.

**Claims 7-10 and 16-25 are also rejected in the light of a combination of Ji and Kim.**

These rejections appear to be based on an assertion that quarantining is known from Kim and would be combined with the teaching of Ji to arrive at the features of the rejected claims.

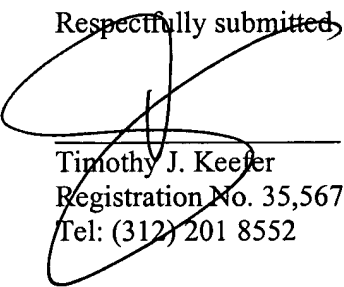
However, as indicated above, as we submit that the argumentation and amendments herein establish the patentability of the independent claims, then, we submit, the narrowing dependent claims are also patentable.

In view of the amendments made to the claims, and the arguments presented above, it is respectfully submitted that allowable subject matter has been defined and the Examiner is requested to reconsider his prior art objections.

Application No. 09/812409  
Amendment dated:  
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Accordingly, early allowance of the subject application is earnestly requested. If the Examiner should have any queries, he is invited to contact the undersigned.

Respectfully submitted,



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